



# STIC Search Report

## EIC 2100

STIC Database Tracking Number: 108423

TO: Aaron Strange  
Location: 3C16  
Art Unit : 2153  
Monday, November 24, 2003

Case Serial Number: 09/718143

From: David Holloway  
Location: EIC 2100  
PK2-4B30  
Phone: 308-7794

david.holloway@uspto.gov

### Search Notes

Dear Examiner Strange,

Attached please find your search results for above-referenced case.  
Please contact me if you have any questions or would like a re-focused search.

David

Set	Items	Description
S1	13	AU=(SHABTAY, L? OR SHABTAY L?)
S2	4	S1 AND IC=G06F?
S3	4	IDPAT (sorted in duplicate/non-duplicate order)
S4	2	IDPAT (primary/non-duplicate records only)

File 344:Chinese Patents Abs Aug 1985-2003/Apr  
(c) 2003 European Patent Office

File 347:JAPIO Oct 1976-2003/Jul(Updated 031105)  
(c) 2003 JPO & JAPIO

File 348:EUROPEAN PATENTS 1978-2003/Nov W02  
(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031113,UT=20031106  
(c) 2003 WIPO/Univentio

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200374  
(c) 2003 Thomson Derwent

4/5/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014838840 \*\*Image available\*\*  
WPI Acc No: 2002-659546/200271  
XRPX Acc No: N02-521234

Connecting client to server by load balancer associated with several  
servers in way that does not require management of large storage area  
Patent Assignee: AVAYA COMMUNICATIONS ISRAEL LTD (AVAY-N); AVAYA  
COMMUNICATION LTD (AVAY-N); AVAYA COMMUNICATION ISRAEL LTD (AVAY-N);  
AMITAI E (AMIT-I); BEISER D (BEIS-I); FRIEDMAN O (FRIE-I); KRONENTAL G  
(KRON-I); SHABTAY L (SHAB-I)  
Inventor: AMITAI E; BEISER D; FRIEDMAN O; KRONENTAL G; SHABTAY L  
Number of Countries: 032 Number of Patents: 007  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1235411	A2	20020828	EP 2002251339	A	20020226	200271 B
BR 200200490	A	20021001	BR 2002490	A	20020220	200271
US 20020120743	A1	20020829	US 2001793455	A	20010226	200271
CA 2367942	A1	20020826	CA 2367942	A	20020116	200272
CN 1372405	A	20021002	CN 2002105114	A	20020222	200307
JP 2002335268	A	20021122	JP 200248878	A	20020226	200307
KR 2002069489	A	20020904	KR 20029821	A	20020225	200309

Priority Applications (No Type Date): US 2001793455 A 20010226

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1235411	A2	E	13	H04L-029/06	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
BR 200200490	A			H04L-012/56	
US 20020120743	A1			G06F-015/173	
CA 2367942	A1	E		H04L-012/12	
CN 1372405	A			H04L-012/54	
JP 2002335268	A		13	H04L-012/56	
KR 2002069489	A			H04L-012/56	

Abstract (Basic): EP 1235411 A2

NOVELTY - Involves establishing a first connection for transmission  
of packets between the load balancer and the client. A server is  
selected to service the client. The first connection is spliced with a  
second connection between the load balancer and the selected server.  
The second connection is established before the first connection.

USE - To connect a client to a server by a load balancer associated  
with several servers e.g. in packet based network using HTTP messages.

ADVANTAGE - Does not require the management of a large storage area  
for all first packets of connections for which the load balancer is  
currently selecting a server.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow diagram of the  
method.

pp; 13 DwgNo 2/2

Title Terms: CONNECT; CLIENT; SERVE; LOAD; BALANCE; ASSOCIATE; SERVE; WAY;  
REQUIRE; MANAGEMENT; STORAGE; AREA

Derwent Class: T01; W01

International Patent Class (Main): G06F-015/173 ; H04L-012/12; H04L-012/54  
; H04L-012/56; H04L-029/06

International Patent Class (Additional): G06F-013/00 ; G06F-015/00 ;  
H04B-007/24

File Segment: EPI

4/5/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014652463 \*\*Image available\*\*  
WPI Acc No: 2002-473167/200251  
XRPX Acc No: N02-373551

Load balancer operation acceleration method in communication network,  
involves comparing parameters of packets with respective fields of  
entries of list of packet groups, to determine if the packets match entry  
of list

Patent Assignee: AVAYA COMMUNICATION ISRAEL LTD (AVAY-N)

Inventor: SHABTAY L

Number of Countries: 031 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1209876	A2	20020529	EP 2001309790	A	20011121	200251 B
BR 200105234	A	20020625	BR 20015234	A	20011114	200251
CA 2359855	A1	20020521	CA 2359855	A	20011024	200251
CN 1354578	A	20020619	CN 2001130371	A	20011121	200263
JP 2002232446	A	20020816	JP 2001355429	A	20011121	200269
KR 2002039615	A	20020527	KR 200172186	A	20011120	200275

Priority Applications (No Type Date): US 2000718143 A 20001121

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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EP 1209876	A2	E 21	H04L-029/06	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

BR 200105234	A		H04L-029/06
CA 2359855	A1	E	H04L-012/56
CN 1354578	A		H04L-012/56
JP 2002232446	A	19	H04L-012/44
KR 2002039615	A		H04L-012/56

Abstract (Basic): EP 1209876 A2

NOVELTY - Parameters of packets received by an accelerator switch (26) are compared with respective fields of entries of a list of packet groups, to determine whether the packets match with an entry of the list. The packets are directly forwarded to the destination, based on the determination result.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Method of creating entry in a list which correlates between packet groups and respective destination servers; and  
(2) Load balancing accelerator.

USE - For accelerating server load balancing operation in communication networks, by an accelerator switch.

ADVANTAGE - By using smaller sets of parameters in grouping the packets, the operation of the accelerator is simplified and the amount of storage space required, is reduced.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic block diagram of the server farm.

Accelerator switch (26)  
pp; 21 DwgNo 1/8

Title Terms: LOAD; BALANCE; OPERATE; ACCELERATE; METHOD; COMMUNICATE;  
NETWORK; COMPARE; PARAMETER; PACKET; RESPECTIVE; FIELD; ENTER; LIST;  
PACKET; GROUP; DETERMINE; PACKET; MATCH; ENTER; LIST

Derwent Class: T01; W01

International Patent Class (Main): H04L-012/44; H04L-012/56; H04L-029/06

International Patent Class (Additional): G06F-013/00 ; G06F-015/177 ;  
H04L-012/02; H04L-012/46; H04L-029/02; H04L-029/12

File Segment: EPI

Set	Items	Description
S1	8	AU=(SHABTAY, L? OR SHABTAY L?)
S2	5	RD (unique items)
File	2:INSPEC	1969-2003/Nov W2 (c) 2003 Institution of Electrical Engineers
File	8:EI Compendex(R)	1970-2003/Nov W2 (c) 2003 Elsevier Eng. Info. Inc.
File	35:Dissertation Abs Online	1861-2003/Oct (c) 2003 ProQuest Info&Learning
File	65:Inside Conferences	1993-2003/Nov W3 (c) 2003 BLDSC all rts. reserv.
File	434:SciSearch(R) Cited Ref Sci	1974-1989/Dec (c) 1998 Inst for Sci Info
File	636:Gale Group Newsletter DB(TM)	1987-2003/Nov 20 (c) 2003 The Gale Group
File	275:Gale Group Computer DB(TM)	1983-2003/Nov 20 (c) 2003 The Gale Group
File	160:Gale Group PROMT(R)	1972-1989 (c) 1999 The Gale Group
File	148:Gale Group Trade & Industry DB	1976-2003/Nov 21 (c) 2003 The Gale Group
File	20:Dialog Global Reporter	1997-2003/Nov 21 (c) 2003 The Dialog Corp.

2/5/1 (Item 1 from file 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6323405 INSPEC Abstract Number: B1999-09-6150M-108, C1999-09-5640-069

**Title: On the memory overhead of distributed snapshots**

Author(s): Shabtay, L. ; Segall, A.

Author Affiliation: Dept. of Comput. Sci., Technion-Israel Inst. of Technol., Haifa, Israel

Journal: Networks vol.34, no.1 p.11-17

Publisher: Wiley,

Publication Date: Aug. 1999 Country of Publication: USA

CODEN: NTWKAA ISSN: 0028-3045

SICI: 0028-3045(199908)34:1L:11:MODS;1-L

Material Identity Number: N073-1999-005

U.S. Copyright Clearance Center Code: 0028-3045/99/010011-07

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

**Abstract:** This paper shows that the memory overhead of distributed snapshots is unbounded. Several techniques are suggested for bounding it: bounded memory-overhead versions of distributed snapshots for specific problems, like termination detection and deadlock detection; use of alternative protocols; or use of synchronizers or schedulers in order to limit the photographed protocol to executions whose distributed snapshot requires bounded memory. Each solution is discussed in detail, and its memory overhead is analyzed. (24 Refs)

Subfile: B C

Descriptors: buffer storage; computational complexity; distributed processing; protocols; synchronisation

Identifiers: unbounded memory overhead; distributed snapshots; bounded memory-overhead; termination detection; deadlock detection; protocols; synchronizers; schedulers; photographed protocol; undirected graph; superimposed protocols; memory complexity; buffers

Class Codes: B6150M (Protocols); C5640 (Protocols)

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2/5/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
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4933287 INSPEC Abstract Number: B9506-6150-013, C9506-4240P-018

**Title: Low complexity network synchronization**

Author(s): Shabtay, L. ; Segall, A.

Author Affiliation: Dept. of Comput. Sci., Technion-Israel Inst. of Technol., Haifa, Israel

p.223-37

Editor(s): Tel, G.; Vitanyi, P.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 1994 Country of Publication: West Germany x+369 pp.

ISBN: 3 540 58449 8

Conference Title: 8th International Workshop on Distributed Algorithms

Conference Sponsor: Nat. Facilitieit Inf

Conference Date: 29 Sept.-1 Oct. 1994 Conference Location:

Terschelling, Netherlands

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

**Abstract:** Synchronizer  $\gamma$  is the best synchronizer known that works with any type of synchronous model and any network topology. This paper presents three new synchronizers:  $\eta_1$ ,  $\eta_2$  and  $\theta$ . These synchronizers use sparse covers in order to operate and have the following advantages over synchronizer  $\gamma$ : (1) They are conceptually simpler, as only one convergecast and one broadcast processes are performed along each cluster spanning-tree between each two consecutive pulses, and no preferred links are needed for inter-cluster communication. (2) Synchronizer  $\eta_1$  uses half the communication complexity of synchronizer  $\gamma$ , while retaining the time complexity. (3) Synchronizer  $\theta$  uses half the time complexity of synchronizer  $\gamma$ , while retaining

the communication complexity (4) Since there is no need to select preferred links between neighboring clusters, the initialization process of these synchronizers is more efficient: it requires only  $O(\text{mod } V \text{ mod log mod } V \text{ mod } + \text{mod } E \text{ mod } )$  messages. (19 Refs)

Subfile: B C

Descriptors: communication complexity; computational complexity; distributed algorithms

Identifiers: low complexity network synchronization; synchronous model; network topology; sparse covers; cluster spanning-tree; time complexity; communication complexity; initialization process

Class Codes: B6150 (Communication system theory); C4240P (Parallel programming and algorithm theory); C4240C (Computational complexity); C6150N (Distributed systems software)

Copyright 1995, IEE

2/5/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

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4731617 INSPEC Abstract Number: C9409-6150N-066

**Title: A synchronizer with low memory overhead**

Author(s): Shabtay, L. ; Segall, A.

Author Affiliation: Dept. of Comput. Sci., Technion-Israel Inst. of Technol., Haifa, Israel

p.250-7

Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA

Publication Date: 1994 Country of Publication: USA xix+651 pp.

ISBN: 0 8186 5840 1

U.S. Copyright Clearance Center Code: 1063-6927/94/03.00

Conference Title: 14th International Conference on Distributed Computing Systems

Conference Sponsor: IEEE Comput. Soc. Tech. Committee on Distributed Process.; Polish Inf. Process. Soc

Conference Date: 21-24 June 1994 Conference Location: Poznan, Poland

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P); Theoretical (T)

Abstract: A new message-delaying version of synchronizer gamma, named zeta, is presented. Synchronizer zeta ensures that original-protocol messages received by a node from nodes in the same cluster are never early, and thus, no buffers for their temporary storage are necessary. Only original-protocol messages on edges leading to nodes of other clusters (external edges) may be early. The z-partition algorithm is introduced to reduce the number of external edges connected to each node, thus reducing the memory overhead of zeta. For an arbitrary z, this algorithm ensures that the external degree of each node is no more than  $(\text{mod } V \text{ mod } /z)-1$ . The z-partition algorithm increases the time complexity of zeta to  $O(z+\text{log/sub } k/\text{mod } V \text{ mod } )$  per pulse. The tradeoff between memory overhead and time complexity achieved by the z-partition algorithm is optimal. (22 Refs)

Subfile: C

Descriptors: communication complexity; computational complexity; message passing; protocols; storage management; synchronisation

Identifiers: low memory overhead; synchronizer; message-delaying; original-protocol messages; z-partition algorithm; external edges; memory overhead; time complexity; distributed protocol; communication complexity

Class Codes: C6150N (Distributed systems); C5640 (Protocols); C4240P (Parallel programming and algorithm theory)

2/5/4 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

04145078 INSPEC Abstract Number: C9206-4240P-056

**Title: Message delaying synchronizers**

Author(s): Shabtay, L. ; Segall, A.

Author Affiliation: Dept. of Comput. Sci., Technion Israel Inst. of

Technol., Haifa, Israel

Conference Title: Distributed Algorithms. 5th International Workshop,  
WDAG '91. Proceedings p.309-18

Editor(s): Toueg, S.; Spirakis, P.G.; Kirousis, L.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 1992 Country of Publication: West Germany x+318 pp.

ISBN: 3 540 55236 7

Conference Date: 7-9 Oct. 1991 Conference Location: Delphi, Greece

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

Abstract: Delaying messages is one of the techniques that can be employed in order to create correct asynchronous protocols using the synchronizer mechanism. The paper shows that message delaying cannot be implemented with certain synchronizers and that the synchronizers must be altered before message delaying can be applied. It presents three different techniques that solve the problem and work for most synchronizers. (12 Refs)

Subfile: C

Descriptors: distributed processing; parallel algorithms; programming theory; protocols

Identifiers: asynchronous protocols; synchronizer mechanism; message delaying

Class Codes: C4240P (Parallel programming and algorithm theory); C6150N (Distributed systems)

2/5/5 (Item 1 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

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04020473 E.I. No: EIP94122487215

Title: Synchronizer with low memory overhead, extended abstract

Author: Shabtay, Lior ; Segall, Adrian

Corporate Source: Technion IIT, Haifa, Isr

Conference Title: Proceedings of the 1994 IEEE 14th International Conference on Distributed Computing Systems

Conference Location: Poznan, Pol Conference Date: 19940621-19940624

Sponsor: IEEE; Technical Committee on Distributed Processing; Polish Information Processing Society

E.I. Conference No.: 21451

Source: Proceedings - International Conference on Distributed Computing Systems 1994. IEEE, Piscataway, NJ, USA, 94CH3450-4. p 250-257

Publication Year: 1994

CODEN: PICSEJ

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9502W3

Abstract: A new message-delaying version of synchronizer gamma, named zeta, is presented. Synchronizer zeta ensures that original-protocol messages received by a node from nodes in the same cluster are never early, and thus, no buffers for their temporary storage are necessary. Only original-protocol messages on edges leading to nodes of other clusters (external edges) may be early. The z-partition algorithm is introduced to reduce the number of external edges connected to each node, thus reducing the memory overhead of zeta. For an arbitrary z, this algorithm ensures that the external degree of each node is no more than  $\left\lceil \frac{V}{z} \right\rceil - 1$ . The z-partition algorithm increases the time complexity of zeta to  $O(z \log V)$  per pulse. The tradeoff between memory overhead and time complexity achieved by the z-partition algorithm is optimal. (Author abstract) 22 Refs.

Descriptors: \*Data communication systems; Network protocols; Data storage equipment; Algorithms; Computer networks; Optimal control systems; Mathematical models; Codes (symbols); Distributed computer systems

Identifiers: Synchronizer; Memory overhead; Communication complexity

Classification Codes:

722.3 (Data Communication, Equipment & Techniques); 722.1 (Data Storage, Equipment & Techniques); 723.5 (Computer Applications); 731.1 (Control Systems); 921.6 (Numerical Methods); 722.4 (Digital Computers & Systems)



• 722 (Computer Hardware); 723 (Computer Software); 731 (Automatic Control Principles); 921 (Applied Mathematics)  
72 (COMPUTERS & DATA PROCESSING); 73 (CONTROL ENGINEERING); 92 (ENGINEERING MATHEMATICS)

Set	Items	Description
S1	1080614	BALANC? OR DISTRIBUT? OR ALLOCAT? OR REALLOCAT? OR SHAR? OR REDISTRIBUT?
S2	623157	TABLE? OR MATRIX? OR MATRICES OR TUPLE OR GRID? OR SUBTABLE?
S3	2083295	PACKET? OR FLOW? ? OR BANDWIDTH? OR LOAD?
S4	2706440	COMPAR? OR MATCH? OR LOCAT? OR IDENTIF? OR SORT? OR FILTER?
S5	3151029	ADDRESS? OR SOURCE? OR DESTINATION? OR ID OR COOKIE? OR PORT? OR PARAMETER?
S6	1130	SERVER() FARM? OR (MULTIPL? OR PLURAL? OR SEVERAL? OR MANY - OR VARIOUS?) (N) (SERVER? OR ROUTER?)
S7	21886	PERSISTEN? OR STICKY OR STICKINESS
S8	7407	S1 AND S2 AND S3
S9	1268	S1 AND S7
S10	25	S8 AND S9
S11	22	S1 AND S2 AND (S4 OR S5) AND S6
S12	47	S10 OR S11
S13	20	S12 AND IC=G06F?
S14	1946	S1 AND S2 AND S3 AND S4
S15	642	S14 AND S5
S16	8	S15 AND S7
S17	47	S12 OR S16
S18	20	S17 AND IC=G06F?
S19	20	IDPAT (sorted in duplicate/non-duplicate order)
S20	20	IDPAT (primary/non-duplicate records only)

File 347:JAPIO Oct 1976-2003/Jul(Updated 031105)  
(c) 2003 JPO & JAPIO

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200374  
(c) 2003 Thomson Derwent

20/5/2 (Item 2 from File: 350)  
DIALOG(R) File 350:Derwent WPIX  
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015418356 \*\*Image available\*\*  
WPI Acc No: 2003-480496/200345  
XRPX Acc No: N03-382016

**Cache load balancing method in multiprocessor web server, involves mapping each transaction types to several servers using performance statistics to form dispatch table**

Patent Assignee: HSIEH H (HSIE-I); HUANG C (HUAN-I); SINGH R (SING-I)

Inventor: HSIEH H; HUANG C; SINGH R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030065702	A1	20030403	US 2001962964	A	20010924	200345 B

Priority Applications (No Type Date): US 2001962964 A 20010924

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030065702	A1	12	G06F-009/00	

Abstract (Basic): US 20030065702 A1

NOVELTY - Several transaction types are **identified** for processing by a **load balancing** system having **multiple servers**. A performance statistics is determined for each of the transaction types that is mapped to **several servers** using performance statistics to form a **dispatch table**. The incoming transactions are dispatched to the servers using **dispatch table**.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) **load balancing** system; and
- (2) computer readable medium storing instructions for **cache load balance**.

USE - For **balancing** load of cache for processing transaction such as buy, sell, account, update, quote, **portfolio**, register, in multiprocessor web server.

ADVANTAGE - Enables to dispatch incoming transactions to **various servers** and hence effective usage of processor cache is attained. Enables to reduce regency time for processing the transaction.

DESCRIPTION OF DRAWING(S) - The figure shows a flow diagram illustrating the **cache load balancing** process.

pp; 12 DwgNo 4/6

Title Terms: CACHE; LOAD; **BALANCE**; METHOD; MULTIPROCESSOR; WEB; SERVE; MAP; TRANSACTION; TYPE; SERVE; PERFORMANCE; STATISTICAL; FORM; DISPATCH; **TABLE**

Derwent Class: T01

International Patent Class (Main): G06F-009/00

File Segment: EPI

20/5/4 (Item 4 from File: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014714166 \*\*Image available\*\*  
WPI Acc No: 2002-534870/200257

**Method for supplying mail service using plural mail servers , plural common databases, and user allotment table**

Patent Assignee: LETTEE.COM (LETT-N)

Inventor: KIM G I

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2002011729	A	20020209	KR 200045216	A	20000804	200257 B

Priority Applications (No Type Date): KR 200045216 A 20000804

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2002011729	A		1 G06F-017/60	

Abstract (Basic): KR 2002011729 A

NOVELTY - A method for supplying a mail service using plural mail **servers , plural common databases, and a user allotment table** is provided to transmit/receive mails to a plurality of users.

DETAILED DESCRIPTION - When new user joins as a member, a predetermined mail server is **allocated** out of a plurality of mail servers according to users. And a predetermined **portion** is **allocated** out of a common database according to each mail server using a user allotment **table** (S810). At this time, a plurality of sub web servers may be provided by considering a load of a web server, and a predetermined sub web server may be **allocated** according to users. If a mail is transmitted to a transmission mail server of a transmitter(S820), the user allotment **table** stores the mail to the **allocated portion** of the common database, and transmits the information to the **allocated** mail server(S830). The user performs a log-in process(S840). The user allotment **table** makes the user be connected to the **allocated** mail server, and detects the **allocated** common database **portion** (S850). If the user requests a confirmation of the received mail, the **allocated** mail server fetches a mail stored in the **allocated** common database **portion** (S860).

pp; 1 DwgNo 1/10

Title Terms: METHOD; SUPPLY; MAIL; SERVICE; PLURAL; MAIL; SERVE; PLURAL; COMMON; USER; ALLOT; **TABLE**

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

20/5/6 (Item 6 from File: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014595499 \*\*Image available\*\*  
WPI Acc No: 2002-416203/200244  
XRPX Acc No: N02-327505

**Traffic routing method on Internet protocol communication network,  
involves generating traffic matrix for optimizing routes between  
routers and accordingly distributing route table from centralized  
system to routers**

Patent Assignee: AVIDAN Y (AVID-I); TANAY A (TANA-I); TANAY J (TANA-I)

Inventor: AVIDAN Y; TANAY A; TANAY J

Number of Countries: 097 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200223807	A2	20020321	WO 2001IL860	A	20010911	200244 B
AU 200188036	A	20020326	AU 200188036	A	20010911	200251
US 20020174246	A1	20021121	US 2000232505	A	20000913	200279
			US 2001768521	A	20010124	

Priority Applications (No Type Date): US 2001768521 A 20010124; US  
2000232505 P 20000913

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200223807	A2	E	25	H04L-012/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
PH PL PT RO RU SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200188036	A			H04L-012/00	Based on patent WO 200223807
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US 20020174246	A1			G06F-015/173	Provisional application US 2000232505
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Abstract (Basic): WO 200223807 A2

NOVELTY - The network traffic statistics including ingress and egress statistics obtained based on a traffic load **distribution** of each router, are gathered from an IP network (110). A central system build a traffic **matrix** (126), based on the analysis and the classification of the traffic statistics. Based on the traffic **matrix**, the routes between the routers are optimized and accordingly a routing **table** (130) is **distributed** from the system to **several routers**.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Traffic router;

(b) Virtual signaling Internet protocol **identifier**

USE - For routing traffic on Internet protocol communication network.

ADVANTAGE - The centralized system computes the routing **tables** for routers in the IP protocol network and **distributes** the **table** to the individual routers, thereby the quality performance of the network is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the traffic routing system.

IP network (110)

Traffic **matrix** (126)

Routing **table** (130)

pp; 25 DwgNo 1/5

Title Terms: TRAFFIC; ROUTE; METHOD; PROTOCOL; COMMUNICATE; NETWORK;

GENERATE; TRAFFIC; **MATRIX**; OPTIMUM; ROUTE; ROUTER; ACCORD; **DISTRIBUTE**;  
ROUTE; **TABLE**; CENTRE; SYSTEM; ROUTER

Derwent Class: T01; W01

International Patent Class (Main): G06F-015/173 ; H04L-012/00

File Segment: EPI

20/5/9 (Item 9 from File: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

013990566 \*\*Image available\*\*  
WPI Acc No: 2001-474781/200151  
XRPX Acc No: N01-351377

Client side dispatcher for migrating connection for high-level client  
application from original server address to relocated server address  
has session table for storing original and relocated server addresses

Patent Assignee: RESONATE INC (RESO-N)

Inventor: BRENDLE J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6182139	B1	20010130	US 96691006	A	19960805	200151 B
			US 98103336	A	19980623	

Priority Applications (No Type Date): US 98103336 A 19980623; US 96691006 A  
19960805

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6182139	B1	21	G06F-013/38	CIP of application US 96691006
				CIP of patent US 5774660

Abstract (Basic): US 6182139 B1

NOVELTY - A session table for storing an original and relocated  
server addresses ; input receives from the high-level client  
application (14) first packets containing original server address ;  
outputting to network (30) second packets containing relocated server  
address ; first packets are stored in a local packet storage; first and  
second state machine; a checksum generator; and a sequence number  
generator.

DETAILED DESCRIPTION - A first state machine tracks a sequence of  
the first packets from the high-level client and a second state machine  
tracks a sequence of the second packets to the network. The session  
table has a number of entries. The sequence numbers of the incoming  
packets from the relocated server are adjusted by subtracting a delta  
value while the acknowledgement sequence numbers for outgoing packets  
to the relocated server are adjusted by adding the delta value. The  
delta value is generated by subtracting a sequence number from a first  
packet received from the relocated server from a sequence number from a  
first packet received from the original server. The client side  
dispatcher includes a first and second TCP state connection.

USE - For Internet request dispatching from clients to servers.

ADVANTAGE - Provides highly-fault tolerant web-browser. Error  
recovery using client side TCP migration greatly reduces the  
probability that a user gets the 'SERVER NOT RESPONDING' error message  
when a server fails at the web site. If the primary load balancer at  
the server farm crashes or otherwise becomes unavailable, the  
client with the client side dispatcher does not hang since client  
packets are not forwarded through the load balancer . Avoids a client  
hang caused by a load balancer crash.

DESCRIPTION OF DRAWING(S) - The figure shows client side dispatcher  
in the client machine that assigns a server to the client.

Client (10)

High-level user applications (14)

Client side dispatcher (20)

Network (30)

pp; 21 DwgNo 3/10

Title Terms: CLIENT; SIDE; DISPATCH; MIGRATION; CONNECT; HIGH; LEVEL;  
CLIENT; APPLY; ORIGINAL; SERVE; ADDRESS ; RELOCATION; SERVE; ADDRESS ;  
SESSION; TABLE ; STORAGE; ORIGINAL; RELOCATION; SERVE; ADDRESS

Derwent Class: T01; W01

International Patent Class (Main): G06F-013/38

International Patent Class (Additional): G06F-015/17

File Segment: EPI

20/5/16 (Item 16 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2003 JPO & JAPIO. All rts. reserv.

07055102 \*\*Image available\*\*  
JOB LOAD DISPERSION SYSTEM

PUB. NO.: 2001-282737 [JP 2001282737 A]  
PUBLISHED: October 12, 2001 (20011012)  
INVENTOR(s): ODAGIRI KOJI  
APPLICANT(s): MITSUBISHI ELECTRIC CORP  
APPL. NO.: 2000-089760 [JP 200089760]  
FILED: March 28, 2000 (20000328)  
INTL CLASS: G06F-015/00 ; G06F-015/16 ; G06F-015/177

#### ABSTRACT

PROBLEM TO BE SOLVED: To simply and easily disperse load in a system needing user authentication in the case of utilizing any one of **plural servers** .

SOLUTION: At the time of user log-in, by referring to a **table 8** for job **distribution** management on the basis of the **identification** information, which is acquired from a **table 7** for user management, of a group, to which a relevant user belongs, a job menu generating processing part 5 acquires a job application to be applied to the relevant user and a server 3 to execute that job application. Then, the job application is executed on that server 3, a job menu for the relevant user is generated by forming a hyper link and sent to a client 1 to be utilized by the relevant user, and the menu is displayed. When a job to be executed is selected out of the menu by the user, the relevant job application is executed on the assigned server 3.

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20/5/18 (Item 18 file: 347)  
DIALOG(R)File 347:JAPIO  
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05667487 \*\*Image available\*\*  
COMMUNICATION PROCESSING SYSTEM

PUB. NO.: 09-282287 [JP 9282287 A]  
PUBLISHED: October 31, 1997 (19971031)  
INVENTOR(s): ANEZAKI AKIHIRO  
MUKAI SHOICHI  
APPLICANT(s): SHIKOKU NIPPON DENKI SOFTWARE KK [000000] (A Japanese Company  
or Corporation), JP (Japan)  
NEC CORP [000423] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-096643 [JP 9696643]  
FILED: April 18, 1996 (19960418)  
INTL CLASS: [6] G06F-015/16  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)

#### ABSTRACT

PROBLEM TO BE SOLVED: To effectively **distribute** transactions received from plural terminals to respective servers corresponding to the throughput or load states of the respective servers by detecting the fluctuation of throughput or load states of the respective servers and dynamically changing the **distribution** ratio of transactions to the respective servers.

SOLUTION: The transactions from plural terminals 30 are received by a transaction **distributing** means 203 of the communication processor 20, and the processing is **distributed** to plural servers 10 to be parallelly operated. Concerning this **distribution**, the throughput is inquired of the respective servers 10 by a **distribution** ratio calculating means 201, these respective servers 10 report numerical values expressing the throughput from the throughput or load states of their own CPU to the **distribution** ratio calculating means 201, and that **distribution** ratio calculating means 201 dynamically changes the **distribution** ratio so that the number of entries on an index **table** 212 and a **distribution destination** register **table** 213 is equal to the total of transaction **distribution** ratio. Thus, the loads of transactions can be suitably **distributed** to the respective servers 10.



20/5/18 (Item 18 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2003 JPO & JAPIO. All rts. reserv.

05667487 \*\*Image available\*\*  
COMMUNICATION PROCESSING SYSTEM

PUB. NO.: 09-282287 [JP 9282287 A]  
PUBLISHED: October 31, 1997 (19971031)  
INVENTOR(s): ANEZAKI AKIHIRO  
MUKAI SHOICHI  
APPLICANT(s): SHIKOKU NIPPON DENKI SOFTWARE KK [000000] (A Japanese Company  
or Corporation), JP (Japan)  
NEC CORP [000423] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-096643 [JP 9696643]  
FILED: April 18, 1996 (19960418)  
INTL CLASS: [6] G06F-015/16  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)

#### ABSTRACT

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SOLUTION: The transactions from plural terminals 30 are received by a transaction **distributing** means 203 of the communication processor 20, and the processing is **distributed** to plural servers 10 to be parallelly operated. Concerning this **distribution**, the throughput is inquired of the respective servers 10 by a **distribution** ratio calculating means 201, these respective servers 10 report numerical values expressing the throughput from the throughput or load states of their own CPU to the **distribution** ratio calculating means 201, and that **distribution** ratio calculating means 201 dynamically changes the **distribution** ratio so that the number of entries on an index **table** 212 and a **distribution destination** register **table** 213 is equal to the total of transaction **distribution** ratio. Thus, the loads of transactions can be suitably **distributed** to the respective servers 10.

Set	Items	Description
S1	4696635	BALANC? OR DISTRIBUT? OR ALLOCAT? OR REALLOCAT? OR SHAR? OR REDISTRIBUT?
S2	1794701	TABLE? OR MATRIX? OR MATRICES OR TUPLE OR GRID? OR SUBTABL?
S3	3741473	THROUGHPUT? OR PACKET? OR FLOW? ? OR BANDWIDTH? OR LOAD?
S4	9611202	COMPAR? OR MATCH? OR LOCAT? OR IDENTIF? OR SORT? OR FILTER?
S5	7903872	ADDRESS? OR SOURCE? OR DESTINATION? OR ID OR COOKIE? OR PO-RT? OR PARAMETER? OR CHARACTERISTIC?
S6	2807	SERVER()FARM? OR (MULTIPL? OR PLURAL? OR GROUP OR SEVERAL? OR MANY OR VARIOUS?) (N) (SERVER? OR ROUTER?)
S7	217579	PERSISTEN? OR STICKY OR STICKINESS
S8	40075	S1 AND S2 AND S3
S9	24646	S1 AND S7
S10	200	S8 AND S9
S11	59	S1 AND S2 AND (S4 OR S5) AND S6
S12	15065	S1 AND S2 AND S3 AND S4
S13	5776	S12 AND S5
S14	53	S13 AND (S6 OR S7)
S15	0	S6 AND S10
S16	20	S2(3N)S3 AND S10
S17	0	S11 AND S7
S18	21	S1 AND S2 AND S4 AND S5 AND S6
S19	0	S13 AND S6 AND S7
S20	392264	S4(5N)S5
S21	14	S20 AND S14
S22	50	S16 OR S18 OR S21
S23	35	RD (unique items)
S24	30	S23 NOT PY>2000
S25	30	S24 NOT PD>20001121
File	8:EI	Compendex(R) 1970-2003/Nov W3 (c) 2003 Elsevier Eng. Info. Inc.
File	35:	Dissertation Abs Online 1861-2003/Oct (c) 2003 ProQuest Info&Learning
File	65:	Inside Conferences 1993-2003/Nov W4 (c) 2003 BLDSC all rts. reserv.
File	2:	INSPEC 1969-2003/Nov W3 (c) 2003 Institution of Electrical Engineers
File	94:	JICST-EPlus 1985-2003/Nov W4 (c)2003 Japan Science and Tech Corp(JST)
File	111:	TGG Natl.Newspaper Index(SM) 1979-2003/Nov 19 (c) 2003 The Gale Group
File	233:	Internet & Personal Comp. Abs. 1981-2003/Jul (c) 2003, EBSCO Pub.
File	144:	Pascal 1973-2003/Nov W3 (c) 2003 INIST/CNRS
File	34:	SciSearch(R) Cited Ref Sci 1990-2003/Nov W3 (c) 2003 Inst for Sci Info
File	99:	Wilson Appl. Sci & Tech Abs 1983-2003/Oct (c) 2003 The HW Wilson Co.

25/5/4 (Item 4 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

04557259 E.I. No: EIP96113419464

Title: **Load control in scalable distributed file structures**  
Author: Breitbart, Yuri; Vingralek, Radek; Weikum, Gerhard  
Corporate Source: Univ of Kentucky, Lexington, KY, USA  
Source: Distributed and Parallel Databases v 4 n 4 Oct 1996. p 319-354  
Publication Year: 1996  
CODEN: DPADEH ISSN: 0926-8782  
Language: English  
Document Type: JA; (Journal Article) Treatment: G; (General Review); T;  
(Theoretical)  
Journal Announcement: 9701W2

Abstract: **Distributed** file structures (DiFS), record structures, and disk resident files with key based exact or interval **match** access are presented. Files are organized into buckets that are spread among **multiple servers**. Client requests are serviced by mapping keys onto buckets and looking up the corresponding server in an **address table**. Achieving scalability is one major problem, in the sense that both file size and client throughput can be scaled up by linearly increasing the number of servers and dynamically **redistributing** the data. Simulation results demonstrate the scalability with controlled cost/performance and the importance of global load control. Impact of various tuning **parameters** on the effectiveness of the load was studied in detail. 18 Refs.

Descriptors: **Distributed** database systems; Data structures; Data transfer; Storage **allocation** (computer); Computer simulation; Control systems; Cost effectiveness; Performance; Data acquisition

Identifiers: **Distributed** file structures; Disk resident files

Classification Codes:

723.3 (Database Systems); 723.2 (Data Processing); 722.2 (Computer Peripheral Equipment); 723.5 (Computer Applications); 731.1 (Control Systems); 911.2 (Industrial Economics)

723 (Computer Software); 722 (Computer Hardware); 731 (Automatic Control Principles); 911 (Industrial Economics)

72 (COMPUTERS & DATA PROCESSING); 73 (CONTROL ENGINEERING); 91 (ENGINEERING MANAGEMENT)

25/5/18 (Item 3 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5883437 INSPEC Abstract Number: B9805-6150M-036, C9805-5640-029

**Title: Towards a new IP over ATM routing paradigm**

Author(s): Dumortier, P.

Author Affiliation: Alcatel, Belgium

Conference Title: ISS'97: World Telecommunications Congress. 'Global Network Evolution: Convergence or Collision?'. Proceedings Part vol.2 p.189-95 vol.2

Publisher: Pinnacle Group, Toronto, Ont., Canada

Publication Date: 1997 Country of Publication: Canada 2 vol. (xxxiv+591+633) pp.

Material Identity Number: XX97-03299

Conference Title: Proceedings of ISS'97 International Switching Symposium

Conference Sponsor: Alcatel Canada; Bell Canada; BC Tel; Island Telephone Co.; Manitoba Telecom Serv.; et al

Conference Date: 21-26 Sept. 1997 Conference Location: Toronto, Ont., Canada

Availability: The Pinnacle Group, 2 Pardee Avenue, Suite 300, Toronto, Ont. M6K 3H5, Canada

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Internet routing is traditionally based on dynamic **distributed** routing protocols. This hop-by-hop routing scheme has worked well in the past, but environmental growth of the Internet is starting to create a problem. The flat structure of the Internet means that the size of the routing **tables** directly reflects this growth. Per **packet table** lookups have thus become a heavy burden for routers, leading to performance bottlenecks in the end-to-end forwarding process. A way to alleviate this problem is to forward **packets** directly at the data link layer (L2), eliminating costly network layer (L3) processing. This is particularly applicable in non-broadcast multiple access (NBMA) networks, where direct connectivity can be provided between any two NBMA nodes. The ability to forward network layer **packets** (L3) at the data link layer (L3) across network boundaries is commonly referred to as shortcut routing. In the context of IP over ATM, it means that IP datagrams can be transferred across IP subnet boundaries without being processed by an IP **router**.

**Several** architectures are currently being engineered to realize this L2 forwarding in one form or another. These include the next hop resolution protocol (NHRP) and multiprotocol label switching (MPLS) work of the IETF and the PNNI augmented routing (PAR) and integrated PNNI (I-PNNI) work of the ATM Forum. These approaches are first listed and categorized. At the time of writing, some are still in an embryonic phase. Despite this, a number of critical issues are **identified** which have to be **addressed** in order to obtain an efficient L2/L3 routing architecture. (16 Refs)

Subfile: B C

Descriptors: asynchronous transfer mode; Internet; **packet** switching; protocols; telecommunication network routing

Identifiers: IP; performance bottlenecks; **packet** forwarding; data link layer; non-broadcast multiple access; shortcut routing; next hop resolution protocol; multiprotocol label switching; IETF; PNNI augmented routing; integrated PNNI; ATM Forum; L2/L3 routing

Class Codes: B6150M (Protocols); B6150C (Communication switching); B6210L (Computer communications); B6150P (Communication network design and planning); C5640 (Protocols); C5620W (Other computer networks)

Copyright 1998, IEE

Set	Items	Description
S1	21923	BALANC? OR DISTRIBUT? OR ALLOCAT? OR REALLOCAT? OR SHAR? OR REDISTRIBUT?
S2	4386	TABLE? OR MATRIX? OR MATRICES OR TUPLE OR GRID? OR SUBTABL?
S3	1037	S1(2N)(THROUGHPUT? OR PACKET? OR FLOW? ? OR BANDWIDTH? OR - LOAD?)
S4	115	S2(2N)(COMPAR? OR MATCH? OR LOCAT? OR IDENTIF? OR SORT? OR FILTER?)
S5	678	(COMPAR? OR MATCH? OR LOCAT? OR IDENTIF? OR SORT? OR FILTE- R?)(3N)(ADDRESS? OR SOURCE? OR DESTINATION? OR ID OR COOKIE? - OR PORT? OR PARAMETER? OR CHARACTERISTIC?)
S6	739	SERVER()FARM? OR (MULTIPL? OR PLURAL? OR GROUP OR SEVERAL? OR MANY OR VARIOUS?)(N)(SERVER? OR ROUTER?)
S7	494	PERSISTEN? OR STICKY OR STICKINESS
S8	1	S3 AND S4
S9	0	S3 AND S5 AND S6 AND S7
S10	8	S3 AND S5
S11	3	S3 AND S6 AND S7
S12	12	S8 OR S10 OR S11
S13	10	S12 NOT PY>2000
S14	9	S13 NOT PD>20001121

File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Oct  
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14/3,K/1

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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01781053 DOCUMENT TYPE: Product

PRODUCT NAME: SonicMQ (781053)

Sonic Software Corp (701114)  
14 Oak Park  
Bedford, MA 01730 United States  
TELEPHONE: (781) 999-7000

RECORD TYPE: Directory

CONTACT: Sales Department

REVISION DATE: 20030721

...JMS, XML, DOM2, NJDI, SAX, XA, and other standards. Features include asynchronous reply, support for **multiple servers**, support for push client technology, support for large messages, comprehensive authentication services, and connect-time **load balancing** of client/server and server/server connections. It ensures reliability through its guaranteed delivery, fault tolerance through **persistent** messaging, transactional support, dead message queue, and duplicate message detection. The product line includes SonicMQ...

DESCRIPTORS: Alerts; Client/server; E-Mail; Enterprise Application  
Integration; Fault Tolerance; Integration Software; Internetworking;  
**Load Balancing** ; Network Software

14/3,K/2

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

01673765 DOCUMENT TYPE: Product

PRODUCT NAME: FloodGate-1 (673765)

Check Point Software Technologies Ltd (594644)  
800 Bridge Pkwy  
Redwood City, CA 94065 United States  
TELEPHONE: (650) 628-2000

RECORD TYPE: Directory

CONTACT: Sales Department

REVISION DATE: 20030421

...addition, a graphical real-time traffic monitor is included. The product can be used to **identify** the **source** of congestion and centrally modify policies as needed.

DESCRIPTORS: Bandwidth Management; Firewalls; Internet Security;  
Internetworking; **Load Balancing** ; Network Administration; Network  
Software; Performance Monitors; QoS (Quality of Service); System  
Monitoring; System Performance; VPNs...

14/3,K/3

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

01145262 DOCUMENT TYPE: Product

**PRODUCT NAME:** Avaki Compute Grid 2.6 (145262)

Avaki Corp (731579)  
15 New England Executive Park  
Burlington, MA 01803 United States  
TELEPHONE: (781) 272-3331

**RECORD TYPE:** Directory

**CONTACT:** Sales Department

**REVISION DATE:** 20030403

...6, available as part of the Avaki Comprehensive Grid system, federates processing resources across multiple **locations**. Avaki Compute Grid 2.6 allows organizations to employ policies in providing users with access to resources. Local...

**DESCRIPTORS:** Computer Resource Management; Grid Computing; **Load Balancing**; Network Administration; Network Software; Parallel Processing

**14/3,K/4**

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

01138398 **DOCUMENT TYPE:** Product

**PRODUCT NAME:** Resonate Global Dispatch (138398)

Resonate Inc (627071)  
385 Moffett Park Dr #205  
Sunnyvale, CA 94089 United States  
TELEPHONE: (408) 548-5500

**RECORD TYPE:** Directory

**CONTACT:** Sales Department

**REVISION DATE:** 20030310

...recovery features. Group-level personalization options direct users to specific servers and applications. Users are **identified** through IP **addresses**. The system also streamlines the deployment of software across multiple distributed servers. Resonate Global Dispatch...

**DESCRIPTORS:** Distributed Processing; E-Commerce; **Load Balancing**; Localization; Network Administration; Network Management; Network Software; Performance Monitors; Remote Network Access; System Monitoring; System...

**14/3,K/5**

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00123186 **DOCUMENT TYPE:** Review

**PRODUCT NAMES:** Microsoft Exchange 2000 Server (772593)

**TITLE:** New Exchange Server 2000 will go beyond e-mail  
**AUTHOR:** Cheek, Michael  
**SOURCE:** Government Computer News, v19 n4 p35(1) Feb 21, 2000  
**ISSN:** 0738-4300  
**HOME PAGE:** <http://www.gcn.com>

**RECORD TYPE:** Review

REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20030330

...MDB files on different servers. Therefore, administrators can back up some databases more frequently and **distribute** load more equitably. Active Directory services can operate from another server, and particularized user profiles determine...  
...recognize server events that can set of stipulated preventive actions. Spam can be prevented by **matching** an IP **address** against its Domain Name System entry. Exchange Server 2000 can create a server-side black...

14/3,K/6

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00119611 DOCUMENT TYPE: Review

PRODUCT NAMES: Advantage Database Server (691879)

TITLE: Extended Systems Advantage Servers Up Simplicity  
AUTHOR: Hoffman, Richard  
SOURCE: Network Computing, v10 n19 p26(2) Sep 20, 1999  
ISSN: 1046-4468  
HOMEPAGE: <http://www.NetworkComputing.com>

RECORD TYPE: Review  
REVIEW TYPE: Review  
GRADE: B

REVISION DATE: 20000130

...and performance. The economically priced package omits enterprise level application server features, including failover or **load - balancing**, or row- or record-level locking. If Advantage's features meet users' needs, Advantage Database...  
...dBASE, FoxPro, or CA-Clipper databases. Data Architect allows users to maintain index and data **parameters**, set **filters**, and configure many other table features and parameters. Standard DBF tables cannot have field names...

14/3,K/7

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00115959 DOCUMENT TYPE: Review

PRODUCT NAMES: Internet Traffic Analysis (840521); Market Research (830290)

TITLE: IT Memo To Marketing: Go Out And Play In The Traffic  
AUTHOR: Wilson, Tim  
SOURCE: InternetWeek, v759 p29(1) Apr 5, 1999  
ISSN: 0746-8121  
HOMEPAGE: <http://www.internetwk.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 19990630

World Wide Web traffic analysis software, originally designed to help IT managers plan for **load balancing**, is now being used by marketing professionals to identify user patterns and preferences. In the...



...popular for these functions. Although they are still used by IT managers to plan for **load balancing** and capacity planning, increased sophistication and 'granularity' of the products is embraced by others in ...

...corporation. For example, traffic analysis packages now not only count Web site visits and IP **addresses**, but also **identify** how long users dwelled on a particular page, and whether or not they actually made...

DESCRIPTORS: Internet Marketing; Internet Traffic Analysis; Internet Utilities; **Load Balancing**; Market Research; System Monitoring

14/3,K/8

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00114489 DOCUMENT TYPE: Review

PRODUCT NAMES: Novera jBusiness (731731); Visibroker (632686); PowerTrip (747009); Secant Extreme Persistence (747017); WebSphere Studio (730157)

TITLE: **Application Servers in the Real World: How architecture benefits...**

AUTHOR: Desmond, John P

SOURCE: Component Strategies, v1 n6 p10(4) Dec 1998

ISSN: 1055-3614

HOME PAGE: <http://www.sigs.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20030625

...PRODUCT NAMES: 747009); Secant Extreme Persistence (

...now Inprise's Visibroker, XTRA On-Line's (XOL's) PowerTrip, Secant Technologies' Secant Extreme **Persistence**, and IBM's WebSphere Studio are highlighted in a discussion of Arch's, XTRA On...

...The application server is generally defined as an application architecture of 'n' tiers, in which **multiple servers** are often assigned particular tasks, including access to databases and legacy systems. Multiple platforms can...

...network services through a browser. The application server can also take on middleware responsibilities, including **load balancing**, failover, and database caching. Architecture should be scalable, and Common Object Request Broker Architecture (CORBA...

14/3,K/9

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00103670 DOCUMENT TYPE: Review

PRODUCT NAMES: AC200 (675369); AC300 (675377)

TITLE: **Allot products tackle bandwidth shortages**

AUTHOR: Fitzloff, Emily

SOURCE: InfoWorld, v19 n46 p87(1) Nov 17, 1997

ISSN: 0199-6649

HOME PAGE: <http://www.infoworld.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20030925

Allot Communications' AC200 and AC300 are integrated hardware/software solutions that emphasize policy-based **allocation** of **bandwidth** and server resources. A spokesman for the vendor says the products are meant to address...

...server load needs. Allot uses Virtual Channels based on such criteria as IP addresses, TCP **ports**, uniform resource **locators** (URLs), or content types to determine end-to-end-traffic parameters. Allot products improve on

...

Set	Items	Description
S1	633172	BALANC? OR DISTRIBUT? OR ALLOCAT? OR REALLOCAT? OR SHAR? OR REDISTRIBUT?
S2	608522	TABLE? OR MATRIX? OR MATRICES OR TUPLE OR GRID? OR SUBTABL?
S3	799195	THROUGHPUT? OR PACKET? OR FLOW? ? OR BANDWIDTH? OR LOAD?
S4	1299022	COMPAR? OR MATCH? OR LOCAT? OR IDENTIF? OR SORT? OR FILTER?
S5	1259095	ADDRESS? OR SOURCE? OR DESTINATION? OR ID OR COOKIE? OR PORT? OR PARAMETER? OR CHARACTERISTIC?
S6	4016	SERVER() FARM? OR (MULTIPL? OR PLURAL? OR SEVERAL? OR MANY - OR VARIOUS?) (N) (SERVER? OR ROUTER?)
S7	41809	PERSISTEN? OR STICKY OR STICKINESS
S8	6006	S1 (15N) S2 (15N) S3
S9	1336	S1 (15N) S7
S10	86	S8 (S) S9
S11	124	S1 (S) S2 (S) (S4 OR S5) (S) S6
S12	200	S10 OR S11
S13	138	S12 AND IC=G06F?
S14	2502	S1 (15N) S2 (15N) S3 (15N) S4
S15	1118	S14 (S) S5
S16	29	S15 (S) S7
S17	12	S13 AND IC=(G06F-007? OR G06F-015?)
S18	35	S1(10N)S2(10N)S3(10N)S7
S19	22	S18 AND IC=G06F?
S20	18	S8(5N)S9
S21	63	S16 OR S17 OR S18 OR S19 OR S20
S22	48	S21 AND IC=(G06F? OR H04L?)
S23	26	S22 NOT AD>20001121

File 348:EUROPEAN PATENTS 1978-2003/Nov W03

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031120,UT=20031113

(c) 2003 WIPO/Univentio

23/5,K/3 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2003 WIPO/Univentio. All rts. reserv.

00802047 \*\*Image available\*\*

**DISTRIBUTED TRAFFIC CONTROLLING SYSTEM AND METHOD FOR NETWORK DATA  
SYSTEME DE COMMANDE DU TRAFIC DISTRIBUE ET PROCEDE POUR DONNEES DE RESEAU**

Patent Applicant/Assignee:

RAINFINITY INC, Suite 200, 87 N. Raymond Avenue, Pasadena, CA 91103, US,  
US (Residence), US (Nationality), (For all designated states except:  
US)

Patent Applicant/Inventor:

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US (Residence), CA (Nationality), (Designated only for: US)  
FAN Chenggong, 1155 E. Del Mar Boulevard #105, Pasadena, CA 91106, US, US  
(Residence), CN (Nationality), (Designated only for: US)  
LEMAHIEU Paul, 1032 E. Del Mar Boulevard #301, Pasadena, CA 91106, US, US  
(Residence), US (Nationality), (Designated only for: US)  
LOVE Philip, 1032 E. Del Mar Boulevard #301, Pasadena, CA 91106, US, US  
(Residence), GB (Nationality), (Designated only for: US)

Legal Representative:

HALL David A (et al) (agent), Heller Ehrman White & McAuliffe, LLP, Suite  
700, 4250 Executive Square, La Jolla, CA 92037, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200135601 A1 20010517 (WO 0135601)  
Application: WO 2000US9966 20000412 (PCT/WO US0009966)  
Priority Application: US 99437637 19991110

Parent Application/Grant:

Related by Continuation to: US 99437637 19991110 (CIP)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE  
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: H04L-029/06

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 18369

English Abstract

A distributed gateway (310) represented in the figure for controlling computer network data traffic dynamically reconfigures traffic assignments among multiple gateway machines (302, 304, 306, 308) for increased network availability. If one of the distributed gateway machines becomes unavailable, traffic assignments are moved among the multiple machines such that network availability is substantially unchanged. The machines of the distributed gateway form a cluster (310) and communicate with each other using a Group Membership protocol word such that automatic, dynamic traffic assignment reconfiguration occurs in response to machines being added and deleted from the cluster, with no loss in functionality for the gateway overall, in a process that is transparent to network users, thereby providing a distributed gateway functionality that is scalable. Operation of the distributed gateway remains consistent as machines are added and deleted from the cluster. A scalable, distributed, highly available, load balancing network gateway is thereby provided, having multiple machines that function as a front server layer (310) between the network (314) and a back-end server layer (316,318) having multiple machines functioning as Web file servers, FTP servers, or other application servers. The front layer machines (302,304,306,308) comprise a server cluster that performs fail-over and dynamic load balancing for both server layers.

#### French Abstract

L'invention concerne une passerelle distribuee (310), representee par la figure, destinee a commander le trafic de donnees de reseau informatique et a reconfigurer de facon dynamique les affectations du trafic dans plusieurs dispositifs passerelles (302, 304, 306, 308) pour augmenter la disponibilite d'un reseau. Si l'un des dispositifs passerelle distribuee est indisponible, les affectations du trafic sont deplacees dans les dispositifs de facon que la disponibilite du reseau reste sensiblement inchangee. Les dispositifs de la passerelle distribuee forment un groupe (310) et communiquent les uns avec les autres par l'intermediaire d'un mot de protocole d'appartenance a un groupe de facon qu'une reconfiguration d'affectation du trafic dynamique et automatique se produise en reponse a l'ajout de dispositifs dans le groupe et au retrait de dispositifs de ce dernier, sans perte de fonctionnalite pour l'ensemble de la passerelle, dans un procede transparent pour les utilisateur du reseau, offrant ainsi une passerelle distribuee a fonctionnalite evolutive. Le fonctionnement de la passerelle distribuee reste coherent si des dispositifs sont ajoutes au groupe ou enleves de ce dernier. L'invention concerne ainsi une passerelle distribuee avec equilibrage des charges hautement disponible et evolutive comprenant plusieurs dispositifs fonctionnant comme une couche de serveur initiale (310) entre un reseau (314) et une couche de serveur finale (316, 318) comprenant plusieurs dispositifs fonctionnant comme des serveurs de fichiers Web, des serveurs de protocole de transfert de fichiers, ou comme d'autres serveurs. Les dispositifs de couche initiale (302, 304, 306, 308) comprennent un groupe de serveurs qui met en oeuvre un equilibrage de charge dynamique et de reprise pour les deux couches du serveur.

#### Legal Status (Type, Date, Text)

Publication 20010517 A1 With international search report.

Examination 20010614 Request for preliminary examination prior to end of 19th month from priority date

Withdrawal 20011025 Withdrawal of international application after international publication

Main International Patent Class: H04L-029/06

#### Fulltext Availability:

Detailed Description

#### Detailed Description

... the associated VIP address is "sticky" to the Preferred Host. When a VIP address is " **sticky** " to an assigned node (the one it is associated with in the same row of **Table 1**), it is no longer handled by the **load balancing** process of the **distributed** gateway application wrapper.

ThePersistenceFlagfieldcantakethreepossibleintegervalue:"O","I"and"3". Whenit is "O", it means that the associated VIP address is not **sticky** to any node. This VIP address can be moved, if so required by the **load balancing** process. When the **Persistence** Flag is "I", it means this VIP address is **sticky** to the Current Host specified in the same row of **Table 1**, and therefore it is not handled by the **load balancing** process. If the Current Host fails, this VIP address assignment will move to another node of the subnet, and will become **sticky** to that node. It will stay on that node even if the original Host recovers...

23/5,K/19 (Item 17 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2003 WIPO/Univentio. All rts. reserv.

00749596 \*\*Image available\*\*

**DISTRIBUTED SERVER CLUSTER FOR CONTROLLING NETWORK TRAFFIC**  
**GROUPE DE SERVEURS DISTRIBUES POUR LE CONTROLE DU TRAFIC DE RESEAU**

Patent Applicant/Assignee:

RAINFINITY INC, Suite 200, 87 N. Raymond Avenue, Pasadena, CA 91103, US,  
US (Residence), US (Nationality), (For all designated states except:  
US)

Patent Applicant/Inventor:

BRUCK Jehoshua, 5657 Bramblewood Road, La Canada, CA 91011, US, US  
(Residence), US (Nationality), (Designated only for: US)  
BOHOSSIAN Vasken, 1127 E. Del Mar Boulevard #227, Pasadena, CA 91106, US,  
US (Residence), CA (Nationality), (Designated only for: US)  
FAN Chenggong, 1155 E. Del Mar Boulevard #105, Pasadena, CA 91106, US, US  
(Residence), CN (Nationality), (Designated only for: US)  
LEMAHIEU Paul, 1032 E. Del Mar Boulevard #301, Pasadena, CA 91106, US, US  
(Residence), US (Nationality), (Designated only for: US)  
LOVE Philip, 1032 E. Del Mar Boulevard #301, Pasadena, CA 91106, US, US  
(Residence), GB (Nationality), (Designated only for: US)

Legal Representative:

HALL David A (et al) (agent), Heller Ehrman White & McAuliffe LLP, Suite  
700, 4250 Executive Square, La Jolla, CA 92037, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200062502 A2-A3 20001019 (WO 0062502)  
Application: WO 2000US9861 20000412 (PCT/WO US0009861)  
Priority Application: US 99128872 19990412; US 99437637 19991110

Parent Application/Grant:

Related by Continuation to: US 99437637 19991110 (CIP); US 99128872  
19990412 (CIP)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE  
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: H04L-029/06

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 23312

**English Abstract**

A scalable, distributed, highly available, load balancing server system having multiple machines is provided that functions as a front server layer between a network (such as the Internet) and a back-end server layer having multiple machines functioning as Web file servers, FTP servers, or other application servers. The front layer machines comprise a server cluster that performs fail-over and dynamic load balancing for both server layers. The operation of the servers on both layers is monitored, and when a server failure at either layer is detected, the system automatically shifts network traffic from the failed machine to one or more operational machines, reconfiguring front-layer servers as needed without interrupting operation of the server system. The server system automatically accommodates additional machines in the server cluster, without service interruption. The system operates with a dynamic reconfiguration protocol that permits reassignment of network addresses to the front layer machines. The front layer machines perform their operations without breaking network communications between clients and servers, and without rebooting of computers.

## French Abstract

La presente invention concerne un systeme de serveurs distribues capable d'etre mis a l'echelle a grande disponibilite et a chargement equilibre, comportant une pluralite de machines, qui fonctionne en tant que couche de serveur initial entre un reseau (tel l'Internet) et une couche de serveur final comportant une pluralite de machines operant en tant que serveurs de fichier Web, serveurs de protocole de transfert de fichiers ou serveurs d'autres applications. Les machines de couche initiale comportent un groupe de serveurs qui effectue un chargement dynamique et de reprise pour les deux couches de serveur. Le fonctionnement des serveurs sur les deux couches est surveille, et lorsqu'une panne de serveur est detectee dans une des deux couches, le systeme fait automatiquement passer le trafic de reseau de la machine defectueuse vers une ou plusieurs machines en fonctionnement, effectuant une configuration nouvelle des serveurs de la couche initiale sans interrompre le fonctionnement du systeme de serveurs. Le systeme serveur adapte automatiquement les machines additionnelles dans le groupe de serveurs sans interruption du service. Le systeme fonctionne avec un protocole de reconfiguration qui permet la reaffectation des adresses de reseau aux machines de la couche initiale. Les machines de la couche initiale effectuent leurs operations sans interrompre les communications sur reseau entre clients et serveurs, et sans reinitialisation des ordinateurs.

Legal Status (Type, Date, Text)

Publication	20001019	A2 Without international search report and to be republished upon receipt of that report.
Examination	20010104	Request for preliminary examination prior to end of 19th month from priority date
Search Rpt	20010329	Late publication of international search report
Republication	20010329	A3 With international search report.
Withdrawal	20011018	Withdrawal of international application after international publication

Main International Patent Class: H04L-029/06

Fulltext Availability:

Detailed Description

## Detailed Description

... the associated VIP address is "sticky" to the Preferred Host. When a VIP address is " **sticky** " to an assigned node (the one it is associated with in the same row of **Table 1**), it is no longer handled by the **load balancing** process of the **distributed** server cluster application wrapper. The **Persistence** Flag field can take three possible integer values: "O", "I" and "Y".

26

When it is "O", it means that the associated VIP address is not **sticky** to any node. This VIP address can be moved, if so required by the **load balancing** process. When the **Persistence** Flag is " 1 ", it means this VIP address is **sticky** to the Current Host specified in the same row of **Table 1**, and therefore it is not handled by the **load balancing** process. If the Current Host fails, this VIP address assignment will move to another node of the subnet, and will become **sticky** to that node. It will stay on that node even if the original Host recovers...

Set	Items	Description
S1	17181961	BALANC? OR DISTRIBUT? OR ALLOCAT? OR REALLOCAT? OR SHAR? OR REDISTRIBUT?
S2	3379239	TABLE? OR MATRIX? OR MATRICES OR TUPLE OR GRID? OR SUBTABL?
S3	165068	S1(2N) (THROUGHPUT? OR PACKET? OR FLOW? ? OR BANDWIDTH? OR - LOAD?)
S4	89029	S2(2N) (COMPAR? OR MATCH? OR LOCAT? OR IDENTIF? OR SORT? OR FILTER?)
S5	335911	(COMPAR? OR MATCH? OR LOCAT? OR IDENTIF? OR SORT? OR FILTE- R?) (3N) (ADDRESS? OR SOURCE? OR DESTINATION? OR ID OR COOKIE? - OR PORT? OR PARAMETER? OR CHARACTERISTIC?)
S6	61385	SERVER() FARM? OR (MULTIPL? OR PLURAL? OR GROUP OR SEVERAL? OR MANY OR VARIOUS?) (N) (SERVER? OR ROUTER?)
S7	373117	PERSISTEN? OR STICKY OR STICKINESS
S8	5	S3(S) S4(S) S5
S9	78	S3(S) S4
S10	55	S3(S) S5(S) (S6 OR S7)
S11	2	S9(S) (S6 OR S7)
S12	62	S8 OR S10 OR S11
S13	38	RD (unique items)
S14	24	S13 NOT PY>2000
S15	22	S14 NOT PD>20001121
File 275:Gale Group Computer DB(TM) 1983-2003/Nov 21		
(c) 2003 The Gale Group		
File 47:Gale Group Magazine DB(TM) 1959-2003/Nov 21		
(c) 2003 The Gale group		
File 636:Gale Group Newsletter DB(TM) 1987-2003/Nov 21		
(c) 2003 The Gale Group		
File 16:Gale Group PROMT(R) 1990-2003/Nov 21		
(c) 2003 The Gale Group		
File 624:McGraw-Hill Publications 1985-2003/Nov 21		
(c) 2003 McGraw-Hill Co. Inc		
File 484:Periodical Abs Plustext 1986-2003/Nov W3		
(c) 2003 ProQuest		
File 613:PR Newswire 1999-2003/Nov 24		
(c) 2003 PR Newswire Association Inc		
File 813:PR Newswire 1987-1999/Apr 30		
(c) 1999 PR Newswire Association Inc		
File 141:Readers Guide 1983-2003/Oct		
(c) 2003 The HW Wilson Co		
File 696:DIALOG Telecom. Newsletters 1995-2003/Nov 21		
(c) 2003 The Dialog Corp.		
File 621:Gale Group New Prod. Annou. (R) 1985-2003/Nov 24		
(c) 2003 The Gale Group		
File 674:Computer News Fulltext 1989-2003/Nov W2		
(c) 2003 IDG Communications		
File 88:Gale Group Business A.R.T.S. 1976-2003/Nov 20		
(c) 2003 The Gale Group		
File 369:New Scientist 1994-2003/Nov W3		
(c) 2003 Reed Business Information Ltd.		
File 160:Gale Group PROMT(R) 1972-1989		
(c) 1999 The Gale Group		
File 635:Business Dateline(R) 1985-2003/Nov 20		
(c) 2003 ProQuest Info&Learning		
File 15:ABI/Inform(R) 1971-2003/Nov 22		
(c) 2003 ProQuest Info&Learning		
File 9:Business & Industry(R) Jul/1994-2003/Nov 21		
(c) 2003 Resp. DB Svcs.		
File 13:BAMP 2003/Nov W3		
(c) 2003 Resp. DB Svcs.		
File 810:Business Wire 1986-1999/Feb 28		
(c) 1999 Business Wire		
File 610:Business Wire 1999-2003/Nov 24		
(c) 2003 Business Wire.		
File 647:CMP Computer Fulltext 1988-2003/Nov W3		
(c) 2003 CMP Media, LLC		
File 98:General Sci Abs/Full-Text 1984-2003/Oct		
(c) 2003 The HW Wilson Co.		



File 148:Gale Group Trade Industry DB 1976-2003/Nov 24  
(c)2003 The Gale Group

File 634:San Jose Mercury Jun 1985-2003/Nov 22  
(c) 2003 San Jose Mercury News

15/3,K/1 (Item 1 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
(c) 2003 The Gale Group. All rts. reserv.

02421024 SUPPLIER NUMBER: 63802302 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**Load-balancing technology helps performance-marketing company Be Free**  
**rapidly scale its infrastructure without breaking the bank. -- Loading**  
**Up: High-Speed Transaction Processing on the Internet. (Company Business**  
**and Marketing)**

Golick, Jerry  
Network Magazine, 66  
August 1, 2000

ISSN: 1093-8001 LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 3160 LINE COUNT: 00258

... and what network protocols you need to run.

One of the advantages of using a **load - balancing** server is that you can manage growth in incremental chunks. Rather than buy a big mainframe and try to grow into it, you can install a **load - balanced server farm** that permits you to easily add capacity as demand grows. Best of all, this approach...

...an arm and a leg. Further, this scalability is seamless to end users because the **load - balancing** server is always the primary interface point. In other words, regardless of where the servers are **located**, a single Web **address** is all that end users require.

However, Coyote Point's Equalizer and competitors' products alike...

15/3,K/3 (Item 3 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
(c) 2003 The Gale Group. All rts. reserv.

02388556 SUPPLIER NUMBER: 61241564 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
E-com sites carry heavy load. (Internet/Web/Online Service Information)  
Musich, Paula  
PC Week, 1  
April 3, 2000  
ISSN: 0740-1604 LANGUAGE: English RECORD TYPE: Fulltext  
WORD COUNT: 719 LINE COUNT: 00061

... servers to speed customer connections by splitting individual users' sessions into multiple IP addresses.

Most load balancing software vendors keep an individual session together via a method called **persistence**. By assigning a unique **cookie identifier** to the session, the software can maintain the **persistent** connection required to ensure that electronic shopping carts stay with customers as they browse an...

15/3,K/4 (Item 4 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
(c) 2003 The Gale Group. All rts. reserv.

02265484 SUPPLIER NUMBER: 53680336 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
New Enterprise Switch: Cisco Systems Rolls Out a New Class of Multi-Gigabit  
Application-Aware Enterprise Switches. (Catalyst 6000 ) (Product  
Announcement)

EDGE, on & about AT&T, NA

Feb 1, 1999

DOCUMENT TYPE: Product Announcement LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 1275 LINE COUNT: 00113

TEXT:

...insure high system availability at the device level, the Catalyst 6000 family supports redundant supervisors, **load - sharing** power supplies, fans, system clocks, uplinks and switch fabrics (in Catalyst 6500 series). All system...

...the Catalyst 6000 family supports automatic recovery from failure using Spanning Tree per VLAN, and **load - sharing** for faster link convergence using Cisco's Fast EtherChannel (FEC) or Gigabit EtherChannel (GEC) technologies...

...line cards for increased redundancy and higher-bandwidth links. The Catalyst 6000 family can also **load balance** across redundant Layer-3 paths and supports Hot Standby Routing Protocol (HSRP), providing fast cutover...

...Customers are continually trying to reduce overall cost of ownership by centralizing data centers and **server farms** off-site and then connecting them back into the campus via gigabit Ethernet. Now, with...tracking can be used for troubleshooting and security purposes. Security is further supported with secure **port filtering** which enables individual **ports** to be accessed from specified workstations. The Catalyst 6000 family also supports TACACS+, RADIUS, Access..

15/3,K/9 (Item 3 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
(c) 2003 The Gale Group. All rts. reserv.

06624047 Supplier Number: 55708467 (USE FORMAT 7 FOR FULLTEXT)  
**HydraCookie Allows Routable Prioritization of WEB Requests.**  
Business Wire, p1018  
Sept 10, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 335

... service levels on the Internet, Intranet and Extranet.

HydraCookie supports cookie-based routing in local **server farms**, as well as via the Internet. Local HydraWEB(TM) **load balancers** **identify** the **cookies** in incoming requests, analyze them, and forward the request to predefined servers. If there are **multiple servers** for the request, HydraWEB **load balances** between them.

For installations with geographically dispersed sites, HydraCookie can be used to rout to...

15/3,K/12 (Item 1 from file: 813)  
DIALOG(R)File 813:PR Newswire  
(c) 1999 PR Newswire Association Inc. All rts. reserv.

1216549 SFM033  
**Alteon Networks Unveils New Line of Internet Traffic Directors Delivering  
Ten Times the Processing Power at One Third the Cost**

DATE: January 26, 1998 08:03 EST WORD COUNT: 1,140

... and processing capacity, as well as pre-defined maximum load threshold on individual servers.

Server Load Balancing on the ACEdirector requires no client administration and no change to servers. Users configure a virtual IP address (VIP) on the ACEdirector for each load - sharing server group. Application sessions are identified by source and destination IP and TCP port addresses. Once identified, the ACEdirector "binds" a new session to the most available server associated with the destination...

... the session terminates. The ACEdirector also offers special handling to meet the requirements of UDP, persistent HTTP, SSL (Secure Socket Layer), FTP and passive FTP sessions.

Unlike Layer-4-aware packet...

15/3,K/14 (Item 2 fr file: 696)  
DIALOG(R)File 696:DIALOG Telecom. Newsletters  
(c) 2003 The Dialog Corp. All rts. reserv.

00600013

**Industry Briefs**

ELECTRONIC MESSAGING NEWS

April 15, 1998 VOL: 10 ISSUE: 8 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: PHILLIPS BUSINESS INFORMATION

LANGUAGE: ENGLISH WORD COUNT: 620 RECORD TYPE: FULLTEXT

(c) PHILLIPS PUBLISHING INTERNATIONAL All Rts. Reserv.

**TEXT:**

...this July will ship  
software that links distributed servers together to form a centrally  
managed **server farm** . Designed for intranets, the software - called  
SiteMARC - will allow information technology managers to monitor  
remote...

...resources; IntelliDirector, an application that will enforce  
policies and acts in conjunction with IntelliAgents to **distribute** the  
**load** evenly across the network; and IntelliAdministrator, which will  
allow administrators to define the level of...and remote and  
mobile users of corporate networks. Under Internet protocols, a user  
is generally **identified** by IP **address** , not user name. Check Point is  
expanding to compete in a market that is demanding...

15/3,K/16 (Item 2 from file: 674)  
DIALOG(R)File 674:Computer News Fulltext  
(c) 2003 IDG Communications. All rts. reserv.

081648

'Cookie cutting' keeps traffic moving

Byline: TED SCHROEDER

Journal: Network World Page Number: 49

Publication Date: February 21, 2000

Word Count: 588 Line Count: 55

Text:

... used in search engines, shopping carts, Web-based e-mail and secure e-commerce applications, **cookies** help administrators **identify** and classify traffic by individual user. Many important Web applications require **persistence**. **Persistence** refers to transactions from a client that must be processed by the same server to...

... be assigned a different IP address for each TCP connection. This poses problems for traditional **load balancers** in maintaining session **persistence**. Because traditional **load balancers** typically use the source IP address to bind user sessions to a specific server for...



15/3,K/17 (Item 3 from file: 674)  
DIALOG(R)File 674:Computer News Fulltext  
(c) 2003 IDG Communications. All rts. reserv.

080670

**Foundry extends server load-balancing reach**

Byline: JEFF CARUSO

Journal: Network World Page Number: 21

Publication Date: January 17, 2000

Word Count: 451 Line Count: 42

**Text:**

Foundry Networks this week will give e-commerce customers more options for server **load - balancing**, as the company updates its switch software to match competitors' capabilities. Foundry's Internet IronWare...

... as Cisco and Alteon WebSystems have had for some time. The new version also maintains **persistent** sessions, ensuring that all packets for a particular session go to the same server. The...

... NW, Nov. 15, 1999, p.14). It can also use the Secure Sockets Layer session ID to **identify** packets. Intira Corp. is looking at global server **load balancing** to **distribute loads** among data centers in St. Louis, New York and Pleasanton, Calif., says Dan Rabb, lead...

... helps the company meet its service-level agreements. Although other vendors provide for global server **load balancing**, Foundry does it slightly differently, says Chandra Kopparapu, product marketing manager at Foundry. Others take...

... the same server. If the user is ordering multiple items from the Web site, such **persistence** is necessary to make sure the server manages the transaction from start to finish. Version...

075297

**Performance soars, features vary**

Byline: PAUL ANDERSON AND GAIL JAMES

Journal: Network World Page Number: 50

Publication Date: June 14, 1999

Word Count: 1908 Line Count: 181

**Text:**

... it with high-end hardware and hope the server is fast enough to handle the **load** ; **distribute** your content to several smaller sites, each with its own Web server; or **balance** the traffic **load** across multiple mirrored servers. For most organizations, **load balancing** is the clear choice. All nine products we tested improved Web server performance significantly, making...

... appreciated ACEdirector's Layer 3 switching and NAT capabilities, but Alteon needs to add global **load balancing** to the mix.Strong security distinguishes F5 Networks' Big/ip High Availability+ Single Controller 2...

... servers and provides no trending data.If you're looking for a basic Web server **load balancer** that won't require much training, Coyote Point's Equalizer E250 may be just what...

... needs refining. Documentation errors hurt its score in this review. One of the three fastest **load balancers** we tested, IBM's WebSphere Performance Pack, is scalable and secure, and sports a polished...

... a lot of useful features, but it lacks the polish of the leaders.Though the **load - balancing** products we tested are as diverse as the vendors that designed them, we found they fall into three basic product types:  
**Load - balancing** software, which includes Resonate's Central Dispatch for Sun and Windows NT, and IBM's...

... Point's Equalizer, HydraWeb's Hydra5000 and IPivot's Intelligent Broker 4000. n Switch-based **load balancers** , which include Alteon's ACEdirector 2 and HolonTech's HyperFlow 2. No one product type...

... top three finishers. Share the burdenPerformance is a key feature to look for in a **load balancer** . Our performance tests were not designed to stress the products to their breaking points. Rather, we set out to compare the efficiency of the nine **load balancers** and show the improvements you can expect to see when you add a **load balancer** to your site.In our tests, the nine **load balancers** significantly improved Web site performance. Surprisingly, F5's Big/ip improved pages-served performance by ...

... the performance leader, providing a 200% throughput increase over a single Web server with-out **load balancing** . With three Web servers, Resonate's Central Dispatch led the field, providing a 330% throughput...

... Web page delivery 185% to 57 page/sec. The average speed gain for all the **load balancers** tested was a 236% increase.For scalability, we evaluated each product's ability to handle a large **server farm** directly connected to the **load balancer** , as well as the product's ability to dynamically test a remote Web site and...

... it if that site would be the best performer for that user.The software-based **load balancers** accept connection requests and hand the connections over to the Web server chosen in the balancing scheme. This way, the **load balancer** only handles the packet once.Thus, for the same processing power, a software **load balancer** should be able to handle roughly twice the Web service requests of a switch- or...

... device. Resonate's Central Dispatch loads an agent onto the Web server

to complete the **load balancer** connection. IBM's WebSphere requires a loopback adapter on the Web server. You can configure...

... beyond its capacity as a router, you can configure Web Server Director like a software **load balancer**. Similarly, you can configure IPivot's Intelligent Broker 4000 like a router, using its single...

... overcomes this limitation with its four-port Hydra5000 router. HydraWeb also offers an optional global **load - balancing** management tool called HydraHydra100. The tool provides true enterprise scalability, site-level resiliency, traffic prioritization and disaster recovery. Locally, the switch-based **load balancers** scale well. The switches either put Web servers on their own switched ports or cluster...

...with multiple connections to the WAN interfaces. HolonTech's HyperFlow 2 is a 16-port **load - balancing** switch. The other switch we tested, Alteon's ACEDirector 2, has eight ports for servers...

...add another switch if you need more connections. However, neither switch supports remote Web site **load balancing**, while the seven other products we tested do. Management and configuration Web performance can change by...

...and CPU utilization. Radware's Web Server Director's GUI supports NAT and several other **load - balancing** options. We liked the way Web Server Director allowed us to test response time for...

... drawbacks of ACEDirector is that it doesn't provide server performance history. The router-based **load balancers** are the hardest to configure for someone with limited Unix experience. F5's Big/ip...

... based management utility that is fast but plain, giving all the necessary configuration options for **load balancing**. Equalizer offers innovative data tracking and plotting of historical statistics, which gives you a good...

... tasks for a large Web site. HydraWeb's Hydra5000 also requires you to configure its **load balancer** from a Unix command line. Fortunately, HydraWeb's standard policy includes on-site installation with...

... these devices is making sure they are secure against outside tampering. The dedicated router-based **load balancers**, which typically run on Unix platforms, offer the best security because they can be set up with access lists, **port filtering** and other security features. For instance, you can easily configure the devices to allow only...

... Web servers on a private network and using NAT forces users to go through the **load balancer** before attaching to the Web servers. Of course, this can only be done when the **load balancer** is acting as a router. Only IBM's WebSphere and Resonate's Central Dispatch do...